

## CLAIM

1. A method for extracting a maximum gain of a servo controller for driving a servo motor comprising the steps of:

applying a simulated disturbance torque to a torque command by a vibrating unit while a control gain is raised, and detecting the vibration of a control system by a vibration detecting unit;

repeating a process for applying the simulated disturbance torque while the control gain is raised until the vibration of a prescribed level is detected, and

setting the control gain when the vibration detecting unit detects the vibration exceeding the prescribed level as a maximum gain.